

ABSTRACT OF THE DISCLOSURE

There is provided a power amplifier module which is provided with a function of protecting an amplifying device against destruction caused by a standing wave by reflection from an antenna end in load variation, having a high tolerance level of device destruction and is highly efficient.

Overcurrent flowing at a base of a final stage amplifying portion GaAs-HBT in load variation is detected and canceled and collector current is restrained to thereby prevent an increase in output and prevent destruction of GaAs-HBT. Further, by also using a function of successively lowering idling current when power source voltage is elevated and a clipping function of diodes connected in parallel with output stage GaAs-HBT, voltage as well as current more than necessary are avoided from being applied on the output stage GaAs-HBT.

The tolerance level of device destruction of the power amplifier module can be promoted and device destruction in load variation can be prevented. Further, influence of a current amplification rate of GaAs-HBT on production deviation or temperature variation can be reduced and high production yield can be achieved, which accordingly can contribute to low cost formation.